State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-86

Relating to Certification of New Heavy-Duty Engines and Vehicles

DETROIT DIESEL CORPORATION

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and Detroit Diesel Corporation and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following 2000 model-year Detroit Diesel Corporation diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family		placement Cubic Inches	Exhaust Emission Control Systems and Special Features
YDDXH08.5EJL (Series 50)	8.5	519	Turbocharger Charge Air Cooler Electronic Control Module

The engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP") for Heavy-Duty Diesel Engines (Title 13, California Code of Regulations, Section 1956.8):

	Total	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"FTP"	1.3	15.5	4.0	0.10

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the following emission standards, in grams per brake horsepower-hour, under the EURO III tests in the Settlement Agreement, and a "Not-to-Exceed" nitrogen oxides emission standard of 7.0 grams per brake horsepower-hour:

	Total	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"EURO III"	1.3	15.5	6.0	0.10

BE IT FURTHER RESOLVED: That the following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

	Total	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"FTP"	0.2	1.0	3.9	0.09
"EURO III"	0.03	0.3	5.7	0.04

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

- 1. The Settlement Agreement is in effect.
- 2. The manufacturer is in compliance with all applicable certification requirements of the Settlement Agreement.

Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 13th day of January 2000.

R. B. Summerfield, Chief

Mobile Source Operations Division

Eo: 4-290-86

Process Code: New Submission

Manufacturer: Detroit Diesel Corporation

LARGE ENGINE MODEL SUMMARY

	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	81.5 7C, ECM, CAC, 72.6 67.1 64.7 64.7 58.6
Series 50	ğ	306.3 8 272.8 7 252.2 6 265.7 7 243.1 6 220.2 5
amily Name:	6.Torque @ RPM (SEA Gross)	1150@1200 1025@1200 950@1200 1000@1200 890@1200 800@1200
Manufacturer Family Name:	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	106.9 106.9 106.9 100.2 93.0 93.0 84.3
	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	229.6 229.6 229.6 215.2 199.7 181.1
.5EJL	3.BHP@RPM (SAE Gross)	320@2100 320@2100 320@2100 300@2100 275@2100 275@2100
EPA Engine Family: YDDXH08.5EJL	2.Engine Model	
EPA Engine Famil	1.Engine Code 2.Engine Model	1198 1199 1200 1205 1206 1204